Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

and the names of Gray, Watson, Goodale, Farlow, Austin, Halstead, Faxon and Collins ensure accuracy of determination.

The Catalogue will serve to stimulate the botanical section of the Middlesex Institute which has in contemplation the publication at an early day of a complete Catalogue of the Middlesex Flora.—G. E. D.

Notes from Arkansas.—Hearing of some very large trees of Chinquapin in Arkansas, that were reported as 15 and 18 inches in diameter, I went to see them on the Washita river.

The tree is not uncommon about Hot Springs, Ark., near the base of the mountains many were seen that appeared to be 12 or more inches through and one that was carefully measured gave a circumference of six feet plump, which is equal to two feet diameter at stump high. I was informed that they were used in some places for rail timber, but all that I saw were low headed and could furnish but one cut for such purpose.

When conversing with Dr. Engelman respecting these trees he reminded me of a mistake made by a distinguished botanist, who having heard of these trees, and possibly seen them in the winter mistook them for *Castanea vesca*. It is still believed that our chestnut is not found west of the Mississippi.

In the same region *Magnolia tripetala* was seen of large size, reaching a diameter of eight inches.

About Hot Springs the pines were all *P. mitis*, and the line of the St. Louis, Iron Mt. and Southern Railway about Malvern Station seemed to be the meeting place of *P mitis* and *P. australis*, upon the borders of the metamorphic rocks and the Cretaceous and Tertiary formations. Near this latter place the *Magnolia grandiflora* and *Ilex opaca* are found. Near Hot Springs seven oaks were seen; *Q. alba*, *Q. Muhlenbergii*, *Q. nigra*, *Q. falcata*, *Q. tinctoria*, *Q. rubra*, *Q. obtusiloba*. *Q. imbricaria*, at Iron Mt., Mo., had leaves 8⅝ inches long including the short petiole, by 5¾ inches wide.—JNO. A. WARDER, *North Bend*, *Ohio.*

Rudbeckia rupestris, n. sp.—Stem (3°–5°) and leaves sparingly hairy, branches elongated and terminated by single large heads; upper leaves ovate lanceolate, coarsely serrate, sessile, partly clasping, the lower 3 parted, with deep rounded sinuses, the lower lobes standing out almost halberd shaped, with margined petioles, the lowest 4′ in length and breadth, on long petioles (3′), radical leaves undivided, rhomboid-oval; disk large (¾′), globular, black purple; rays 10–13, 1′–1½′ long, linear-oblong, uniform orange yellow; involucral scales few, spreading, long lanceolate, hirsute, leaf like; chaff of the disk toothed tapering into a slender awn.

Differs from *R. triloba* in the thicker, larger and more halberd shaped leaves, in the fewer (3-5) but much larger heads, and longer rays with no change of color near the disk; and from *R. subtomentosa*, in its smoother, thicker, and broader leaves, in the color of the rays, and in the awned chaff of the disk.

Found abundantly on the rocky slopes of "Little Roan," N. C., at an altitude of 5500 feet, in company with *Liatris spicata*, *Melanthium Virginicum*, and *Delphinium exaltatum*.—J. W. CHICKERING, *Washington, D. C.*

Ferns of Arkansas.—An exhaustive list of the ferns of Arkansas having never been published, but little is known by fern specialists of the representatives of this order in this State. Having been urged by several correspondents to prepare a list, we take great pleasure in presenting our observations, up to date, to the GAZETTE for publication, that they may reach a greater number of botanists.

The varied physical features of Arkansas give a wide range of habitat.

Upon the dry calcareous cliffs of the mountainous region, with a south exposure, are found the conditions favorable for the growth of such genera as *Cheilanthes*, *Notholœna* and *Pellœa*.

The mountain gorges of N. W. Arkansas, shaded from the direct rays of the sun are favorite places for shade and moisture loving genera, such as *Polypodium*, *Asplenium*, *Adiantum*, *Camptosorus*, *Cystopteris*, *Woodsia* and some species of *Aspidium*.

In open woods, in dry calcareous soil, *Phegopteris* and *Pteris* are found.

The low rich woods and swamps invite *Osmunda*, *Botrychium*, *Ophioglossum*, *Woodwardia*, *Onoclea*, and some species of *Aspidium* and *Asplenium*.

We are able to report *forty* forms (including varieties) as the present number of ferns known in Arkansas. An exhaustive list is not claimed, as each year's research has been rewarded by one or two species, and probably more will be found.

The order is well represented in this State by seven of the ten tribes of *Polypodiaceæ* and a range of twelve genera, besides *Osmundaceæ* and the two American genera of *Ophioglossaceæ*.

The following list is arranged in accordance with the excellent "Fern List" by Prof. D. C. Eaton recently published.

ORDER FILICES.

SUBORDER POLYPODIACEÆ.

TRIBE ACROSTICHEÆ.

(Not Represented.)

TRIBE POLYPODIEÆ.

1. *Polypodium vulgare*, L.—N. W. Arkansas, upon rocks in shaded damp situations Grows large and thrifty. Seems to prefer sandstone, though it grows on moss covered trees near shaded cliffs. Never found on limestone in this region.

2. *Polypodium incanum*, Swartz.—Found sparingly, in depauperate form,. in N. W. Ark., upon the escarpments of sandstone cliffs near permanent moisture. S. Ark. upon moss covered trees abundantly. The specimens are large and well developed. Grows luxuriantly upon the shaded sides of low trees with horizontal branches.

TRIBE GRAMMITIDEÆ.

3. *Notholœna dealbata*, Kunze.—N. W. Ark., abundantly, upon the

escarpments of limestone cliffs with a south exposure. It seems to prefer isolated masses of limestone, separated from the main cliff by land slides.

TRIBE VITTARIEÆ.

(Not Represented.)

TRIBE PTERIDEÆ.

4. *Cheilanthes Alabamensis*, Kunze.—Distributed throughout the mountainous region of Arkansas upon limestone ledges only. Usually in comparatively dry situations, though found in shaded places and niches of rocks where it grows larger. This species flourishes upon the tufa ledges, deposited by the Hot Springs in Garland Co. in very moist places. Inland and along streams.

5. *Cheilanthes vestita*, Swartz.—Throughout the N. and W. part of the State upon the flat tops of sandstone ledges, generally, but sparingly in similar situations upon limestone. Plentiful inland and also upon the river cliffs.

6. *Cheilanthes lanuginosa*, Nutt.—Grows quite plentifully, in only one known situation, in N. W. Ark. It is found on limestone cliffs, upon the N. and E. sides of valleys running inland from White River. Though loving the light, it grows larger when protected by projections. Its habitat is similar to that of *Notholœna dealbata*, though they have never been found together. The species may be regarded as scarce in Arkansas.

7. *Cheilanthes tomentosa*, Link.—Sparingly in N. W. Ark. upon limestone cliffs. Plentiful in the mountains of the S. W. part of the State. It grows in dry situations upon sandstone, shale and limestone. It is most abundant high up the hills near the base of ledges facing the south, but can be found on limestone cliffs sparingly, or in moist valleys upon all formations.

8. *Pellœa atropurpurea*, Fee.—Plentiful throughout the upland portion of the State, upon the escarpments of sandstone and limestone ledges with a south exposure. Grows inland upon the cliffs of eroded valleys, as well as along streams.

9. *Pteris aquilina*, L.—Occurs in the N. W. part of Ark. upon hills and prairies, but the most common form is:

var. *caudata*, Hooker, which is found all over the S. part of the State on the ridges and is known as "Upland Fern."

10. *Adiantum Capillus-Veneris*, L.—Throughout the N. and W. part of Ark., upon both lime and sandstone cliffs, in situations affording perennial moisture.

The finest specimens found in the U. S. (of this species) grow in N. W. Ark. upon shelving sandstone ledges of White River, between high and low water mark. It grows on the calcareous tufa ledges at Hot Springs Nothing in the foliage of plants could excite more admiration than a crevice for several hundred feet adorned by an uninterrupted line of these graceful drooping ferns.

11. *Adiantum pedatum*, L.—Throughout N. and W. Ark. in the upland country. It grows most luxuriantly at the base of shelving sandstone cliffs in shaded and damp situations, but is also found along shaded moist ravines in rich woods.